

6605349

Exo III Generated Structures

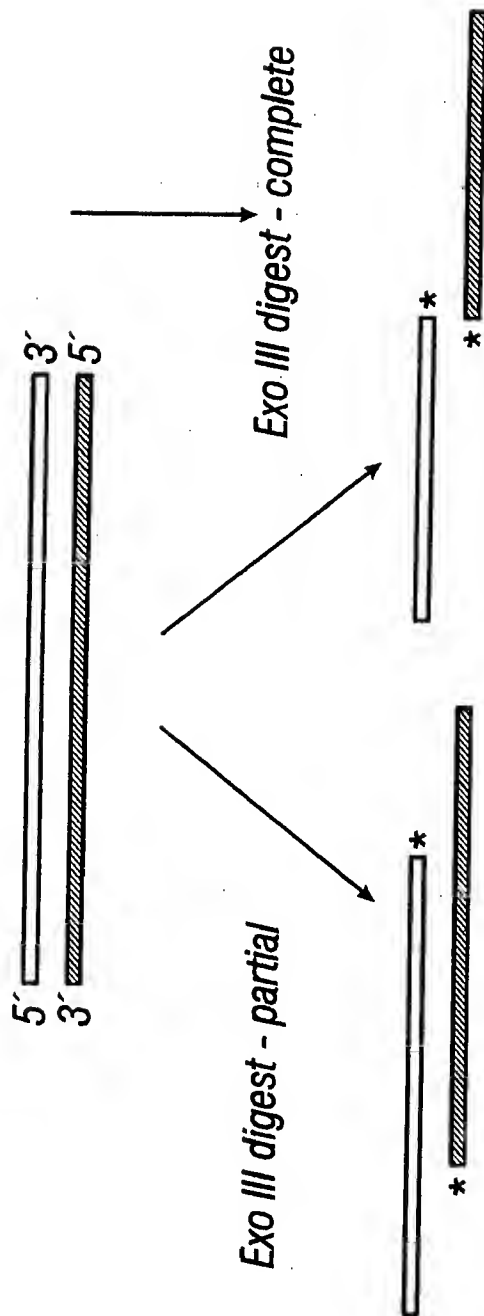


FIG. 1

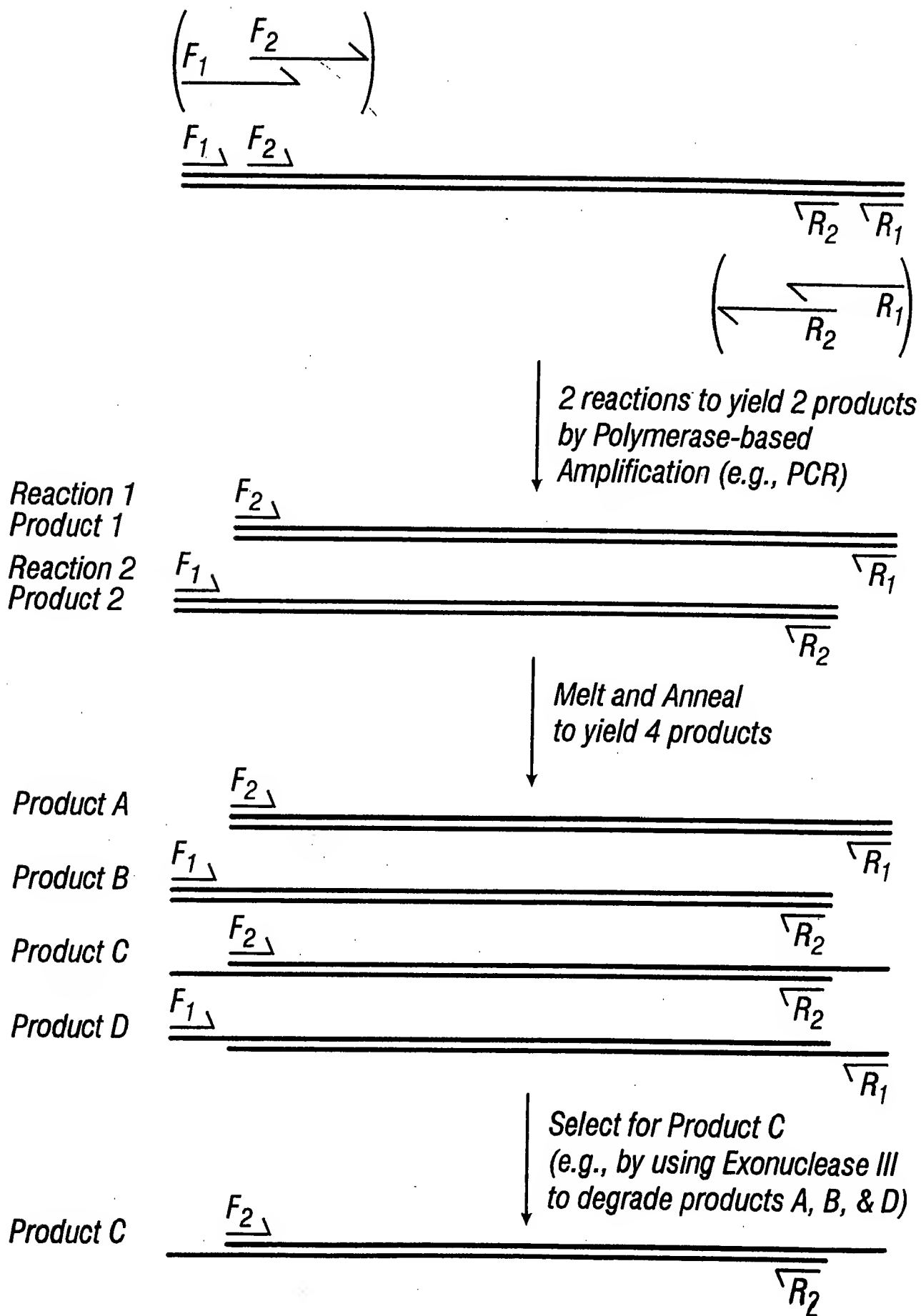
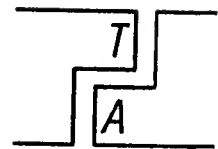
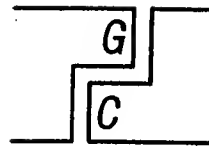
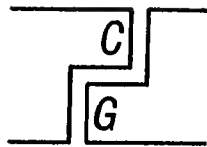
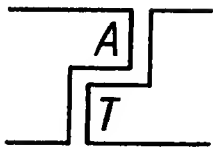


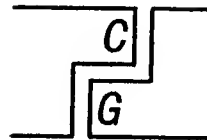
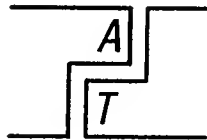
FIG. 2

APR 28 4

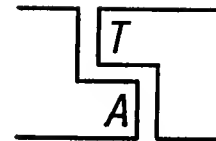
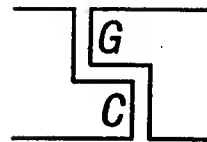
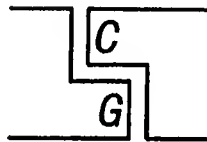
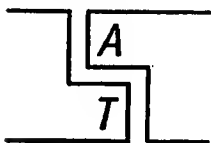
Panel A.



Panel B.



Panel C.



Panel D.

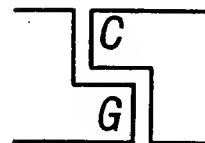
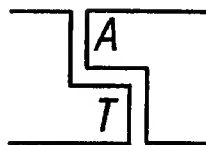
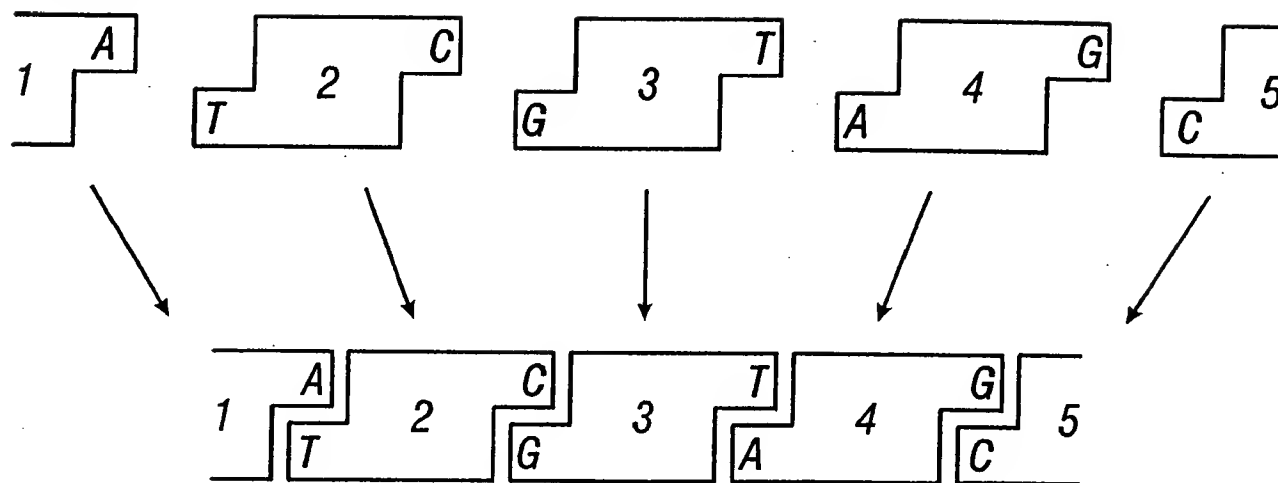


FIG. 3

Panel A.



Panel B.



FIG. 4A

Panel C.

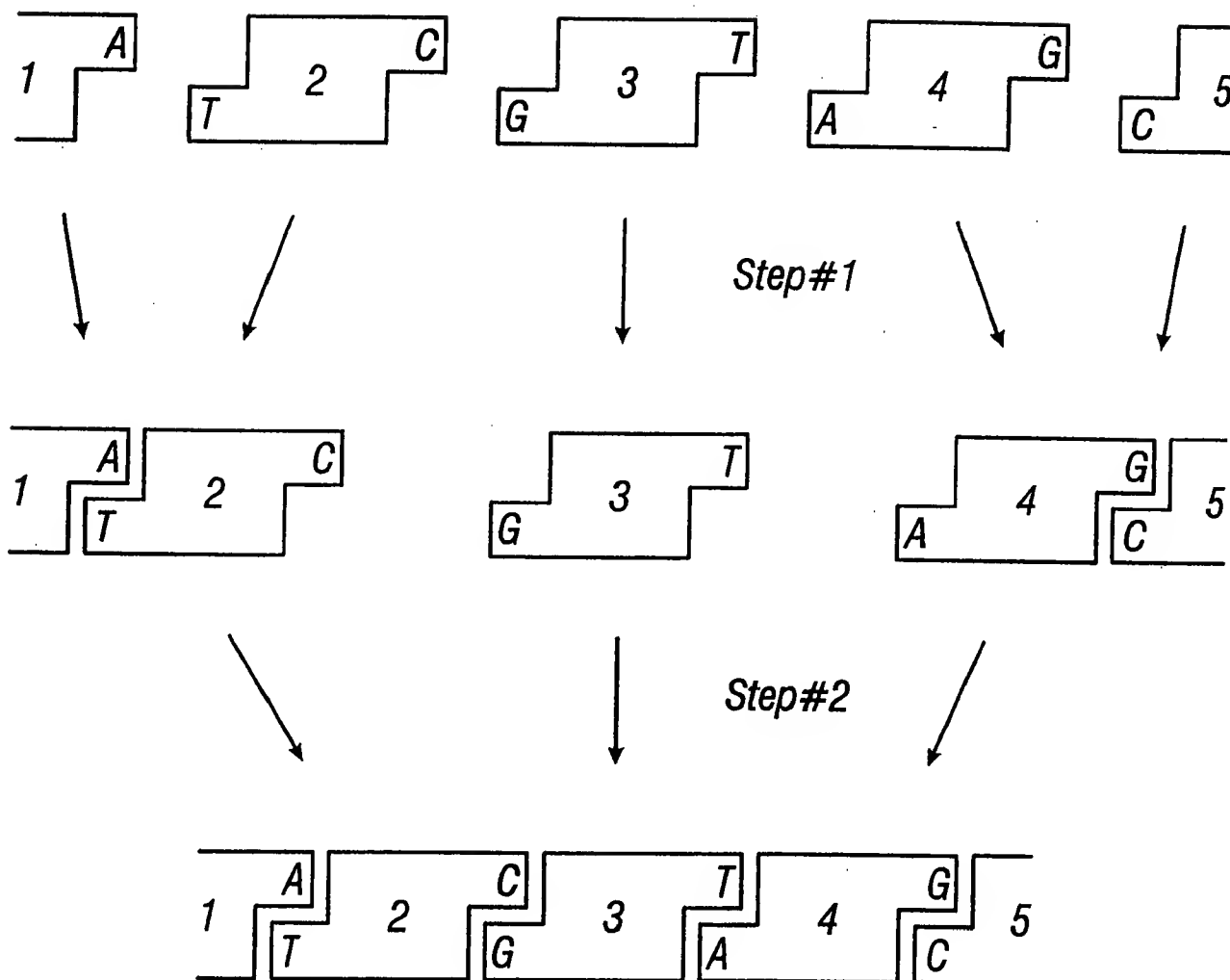


FIG. 4B

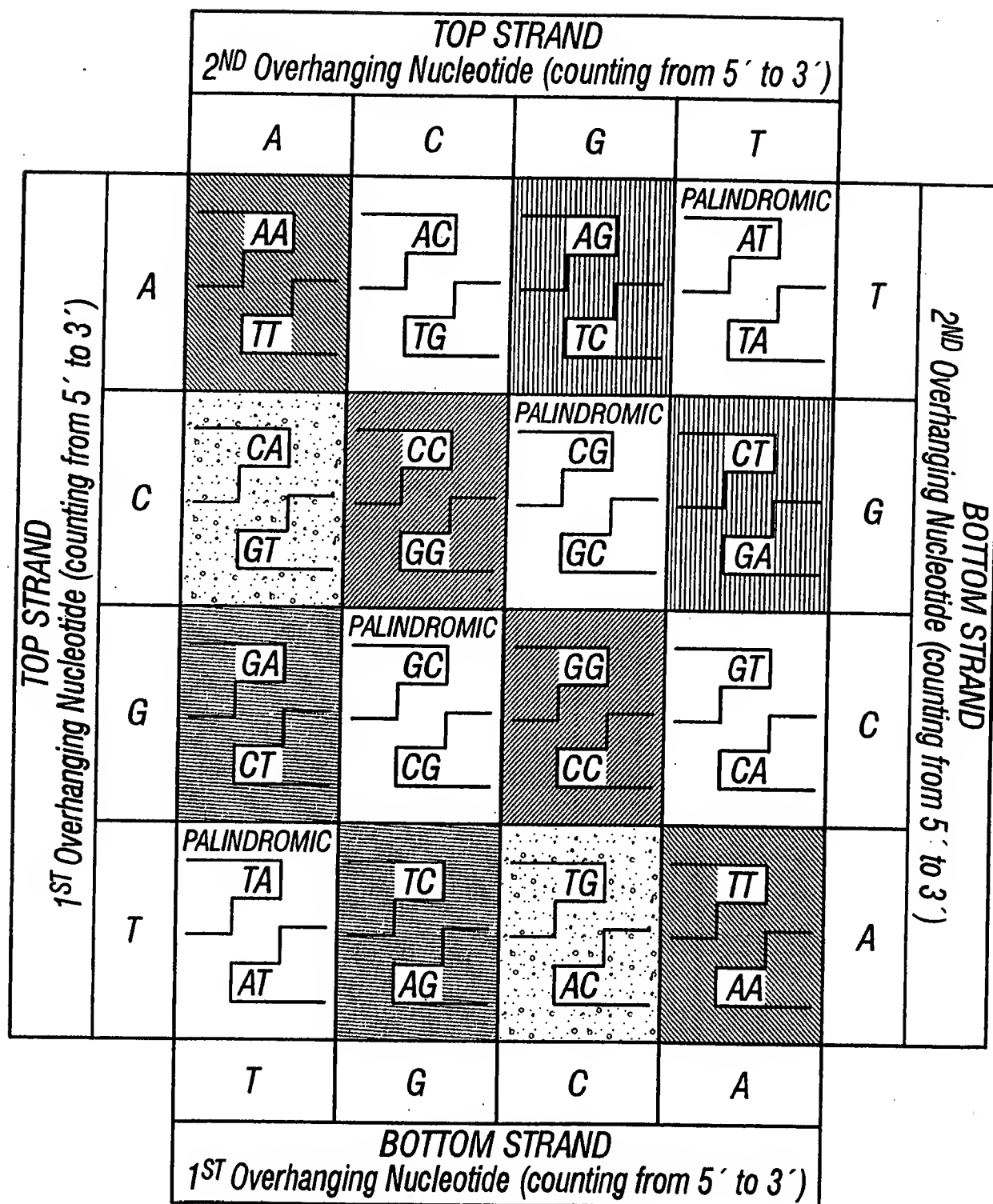


FIG. 5

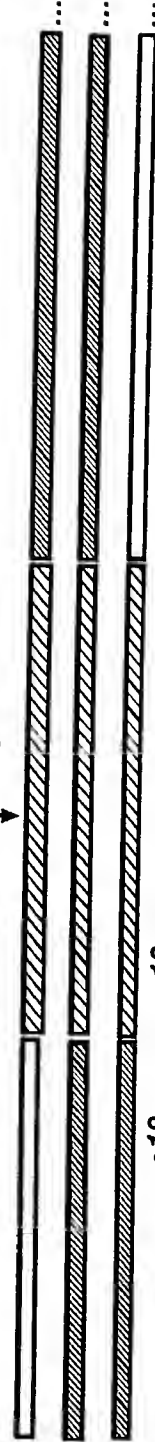
Select for full length

1
124-2d AATGGACAAG AAACGTGTCC GTGTGTACAA CGCGGAGATG GCCTATGTCG 50
12412 ~ATGGAGAAA CACCGCGTAG AAGTTCTCGG TTCGGAGATG GCCTACATCG
124-1d ACACGACAAG CGCTACATCG AGGTGCTGGG TAAAGCGAATG GCCTATGTCG
myco1 CGGGCAGCCG AAGTACCCTAG AAATCGCCCG GAAGCGCATG GCGTATATCG
b3 CTACCCAAA TTTCCGCGGT CCGTCTTCGG CCGCGAGATG GCGTACGTGG
b1 GCATCCGAGA AAGCGGATCG CCGTGCTCGA TTCGGAGATG AGCTACGTCTG
15112 ~ATGCCAGCG ATTGAGCTAT TGGATTCTGTT CATGAACCTAC CGCGACACGG
rhod2 CCCCATTAT GTGGAAGTCC TGGCGGAGCG TATGCACTAC GTCGATGTTG
Consensus----- A-----G

8 + 8 + 8 + n = 144 d.s oligos



Ligate



$8^{18} = 2 \times 10^{16}$ Reassembled Gene Variants

FIG. 6A

100
ACACGGGCCA GGTGATTCC GTCTGTTTC TTCACGGCAA CCCGACGTCG
ACGTGGGAGA GGCAGACCCG ATCGTGTTCC TCCACGGAAA TCCACGTCG
AGATGGGCGA GGTGATCCC ATCATTTTCC AACACGGCAA TCCGACCTCA
ACGAAGGCAA GGTGACGCC ATCGTCTTTC AGCACGGCAA CCCACGTCG
AAGTGGGACG GGCAGACCC ATCGTACTCT TGCACGGCAA CCCACCTCG
ATACCGGCGA GAGAGCGCC ATCGTGTTCC TTCACGGCAA CCCGACTTCC
GCGTCGGCGA T...CTTCCC GTCGTGTTCC TGCACGGCAA CCCACGTCG
GACCGCGGGA TGGCAGCCT GTGCTGTTCC TGCACGGTAA CCCGACCTCG
-----G--- -T--T--T-- -CC-AC-TC-

FIG. 6B

Represents 15% of gene

150
TCGTATCTGT GGAGGGGCGT AATGCCCTTT GTGACGGACG TCGCCCGATG
TCGTACCTGT GCGGAACGT GATCCCCAC GTTGCCGGCT TGGACGCTG
TCGTACCTGT GCGCAACAT CATGCCCCAT GTGCAACAGC TCGTCGCTG
TCCTACTTGT GCGCAACAT CATGCCGCAC TTGGAAGGC TGGCCGGCT
TCGTACCTCT GCGCAACGT GTTGCCGCAC CTGGGCCGT TAGCCGCTG
TCCTATCTTT GCGCAACAT CATCCCCAT CTCGGGATC ACGCAGATG
TCCTACGTCT GCGCAACGT GATCCCGCAC GTCGCTGGC AGCACCGTG
TCCTACCTGT GCGCAACAT CATCCCGCAT GTAGCACCGA GTCATCGGTG
TC--A--T-T GG-G---C-T --T-CC----- -T-----G---

FIG. 6C

NcoI

150am13_00	CAATGATGCACG	GGGATATTC	ATCGAGCAAT	GACACGGTCG	GCGTTGCCCGT	CCGT
150am7_001	CAATGCATCACG	GGGACATTC	ATCGAGCAAT	GACACGGTCG	GCGTTGCCCGT	
431am7_002	CAATGAGACACG	GAGATATCTC	CAGCAGCAAC	GATGCGTGG	GCGTGGCCCGT	
150am13_00	CGTGAACACTAC	AAGATGCCCTC	GCCTTCATAC	CAAGGCGGAG	GTTTTAGCGA	GAG GT
150am7_001	CGTGAACACTAC	AAGATGCCCGC	GGCTTCACAC	CAAGGCTGAG	GTGCTGGCCA	
431am7_002	CGTGAACACTAC	AAGATGCCCGC	GGCTGCATAC	CCGCGCGGAG	GTGATGGAGA	
150am13_00	ACGCCAGAAA	GATCGGCGAG	ATGATCGTCG	GCATGAAGAC	CGGCCCTGCC	CGG
150am7_001	ACTGCCCGCAA	GATCGCCGAC	ATGCTGGTCG	GCATGAAGAG	CGGCCCTGCC	
431am7_002	ACGCCCGCAA	GATCGCCGAC	ATGGTCGTGG	GCATGAAGCG	CGGCCCTGCC	
150am13_00	GGAATGGATC	TGGTGATCTT	CCCGGAATAT	TCGACCCACG	GCATCATGTA	
150am7_001	GGAATGGATC	TGGTGATCTT	CCCGGAATAT	TCCACCCACG	GCATCATGTA	
431am7_002	GGCATGGACC	TGGTCATCTT	CCCCGAGTAC	TCCACCCACG	GCATCATGTA	
150am13_00	CGACTCCAAG	GAAATGTACG	ATACCGCGTC	CGTCGTGCC	GGCGAGGAGA	CCC GG
150am7_001	CGACTCCAAG	GAGATGTACG	ACACGGCGTC	GACGGTGCCG	GGTGAAGAGA	
431am7_002	CGACGCCAAG	GAAATGTACG	AAACCGCTTC	GGCCATTCCG	GGCGAAGAGA	
150am13_00	CCGAGATTTT	TGCCGAAGCC	TGCCGCAAGG	CGAAAGTCTG	GGGCGTGTTC	G GGG
150am7_001	CCGAGATTTT	CGCCGAGGCC	TGCCGCAAGG	CCAAGGTCTG	GGGCGTGTTC	
431am7_002	CTGCTGTGTT	CGCCGACGCC	TGCCGCAAGG	CCAACGTATG	GGGCGTGTTC	

FIG. 7A

150am13_00 TCGCTCACCG GCGAACGTCA CGAGGAACAT CCGAAGAAAGG CAG C GCGCCTACAA
 150AM7_001 TCGCTGACCG GCGAGCGCCA CGAGGAGCAT CCAAATAAAG C GCGGTACAA
 431am7_002 TCGCTGACGG GCGAGCGCCA CGAAGAGCAC CCGAACAAAGG C GCGGTACAA
 150am13_00 CACGCTGATC CTGATGAACG ACAAGGGCGA GGTGGTCCAG CAG AAATAACCGCA
 150AM7_001 CACCCTGATC CTGATGAACG ACAAGGGTGA AGTCGTT CAG AAATAATCGCA
 431am7_002 CACGCTCATC CTGATGAACA ACAAGGGCGA GATCGTG CAG AAGTACCGCA
 150am13_00 AGATCATGCC GTGGGTTCCG ATCAGGGCT GGTA CCCCCG CAACTGCACC
 150AM7_001 AGATCATGCC GTGGGTGCCG ATCGAAGGCT GGTA TCCCG CAACTGCACG
 431am7_002 AGATCATGCC CTGGGTGCCG ATCGAAGGCT GGTA TCCCGG CGATTGCACC
 150am13_00 TACGTCTCCG ACGGGCCGAA GGCATGAAG TGAAG GTTTCGCTGA TCATCTGCGA
 150AM7_001 TACGTCTCCG AAGGCCCGAA GGCATGAAG GTTTCGCTGA TCATCTGCGA
 431am7_002 TATGTGTCGG AAGGCCCGAA GGCATGAAG GGCATGAAG ATCAGCCTCA TCATCTGCGA
 150am13_00 TGACGGCAAC TATCCGGAAA TCTGGCGCGA TCTGGCGCATG AAGGGCGCCG
 150AM7_001 CGACGGCAAC TATCCGGAAA TCTGGCGTGA CTGGCGGATG AAGGGCGCCG
 431am7_002 CGACGGCAAT TATCCCGAGA TCTGGCGCGA TCTGGCGCATG CGCGGCGCCG
 150am13_00 AGCTGATCGT GCGCTGCCAG CCAG GGCTACATGT ATCCGGCCAA GGACCAGCAG
 150AM7_001 AACTGATCAT CCGCTGCCAG GGCTACATGT ATCCCGCCAA GGATCAGCAG
 431am7_002 AGCTGATCGT GCGTTGCCAG GGATACATGT ACCCGGCCAA GGACCAGCAG

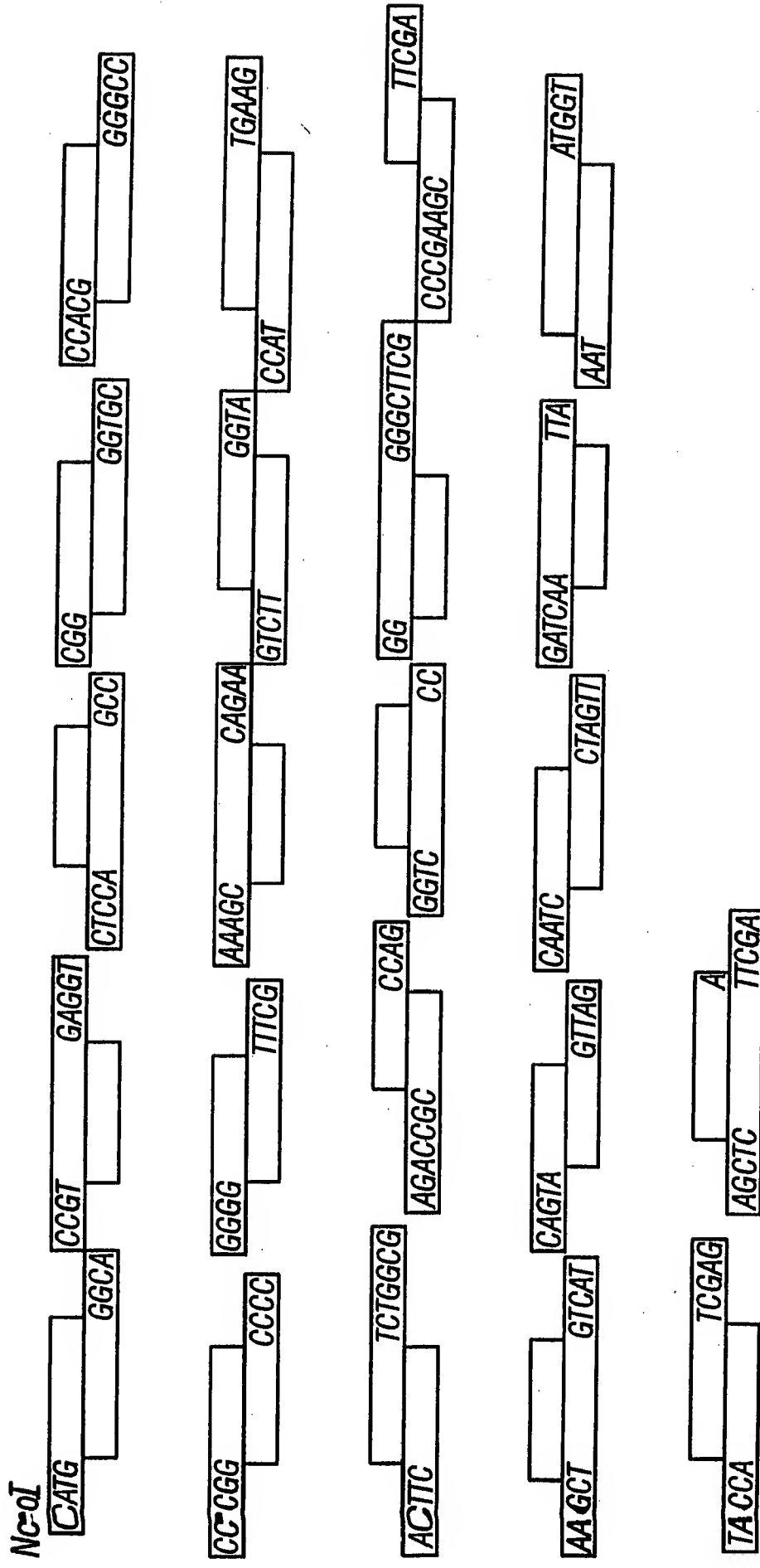
FIG. 7B

150am13_00	GTCA	GC	CGAAGGC	GAT	GGCGTGGCG	AATAATTGTT	ACGTCGCGGT
150am7_001	GTGCTGATGG		CGAAAGCAAT		GGCCTGGGCC	AACAACGTTT	ATGTCGCGGT
431am7_002	GTCATGGTGT		CCAAGGC	CAT	GGCGTGGATG	AACAACGTCT	ACGTGGCGGT
			GGGCTTCG				
150am13_00	TTCCAATGCC		GGGGCTTCG		ATGGCGTCTA	TTCGTATTTC	GGCCACTCGG
150am7_001	CGCCAATGCC		TCGGGCTTCG		ACGGCGTCTA	CTCGTATTTC	GGCCATTTCG
431am7_002	GGCCAATGCC		GGGGCTTCG		ACGGCGTGTA	TTCTTACTTC	GGCCATTTCG
			TTCGA				
150am13_00	CGATCATCGG		CTTCGATGGC		CGCACGCTCG	GCGAATGCGG	CGAGGAAGAA
150am7_001	CGATCATCGG		CTTCGACGGC		CGTACCCCTCG	GCGAATGCGG	CGAGGAGGAT
431am7_002	CCATCATCGG		CTTCGACGGC		CGCACGCTGG	GCGAATGCGG	TGAAGAAGAC
			C AGTA				
150am13_00	TACGGCATCC		AGTATGCCCA		GCTTTCGAAG	ATGCTGATCC	GCGACGCCCG
150am7_001	TATGGCATCC		AGTATGCCGC		CATCTCCAAG	TCGCTGATCC	GCGACGCCGC
431am7_002	ATGGCGTGC		AGTACGCCGA		GCTCTCCACC	AGCCTGATCC	GCGACGCCGC
			CAATC				
150am13_00	CCGCACCGGA		CAATCGGAAA		ACCATCTCTT	CAAGCTGGTG	CATCGTGGCT
150am7_001	CCGCACCGGC		CAATCGGAAA		ACCATCTCTT	CAAGCTGGTG	CACCGTGGCT
431am7_002	CAAGAACATG		CAGTCGCAGA		ACCACTTGTT	CAAGCTGGTG	CACCGCGGCT
			GATCAA				
150am13_00	ACACCGGGTT		GATCAACTCC		GGCGAGGGCG	ACCGCGGTCT	CGCGGCCCTGT
150am7_001	ACACCGGCAT		GATCAACTCC		GGCGAGGGCG	ACCGCGGTGT	CGCGGCTTGC
431am7_002	ACACCGGCAA		GATCAACTCC		GGCGAAGAGG	CCACCGGCGT	CGCGGCATGC

FIG. 7C

150am13_00	TTA	CCTTATGAGT	TCTACAACAA	ATGGATCGCC	GATCCGGAAG	GCACCCGCGA
150AM7_001		CCGTATGATT	TCTATTTCGAA	ATGGATCGCC	GATCCCGAGG	GTACACGCGA
431am7_002		CCGTACCAACT	TCTACGCCAA	CTGGATCAAC	GATCCGGAGG	GCACGCGCAA
		ATGGT				
150am13_00		AATGGTTCGAG	TCCTTTACCC	GGCCGACGGT	GGGAACCGAT	GAAGCGCCCA
150AM7_001		GATGGTGGAA	TCCTTCACGC	GTCCGACGGT	GGGTGTGGAG	GAATGCCCGA
431am7_002		GATGGTTCGAA	TCCTTCACCC	GGTCCACCGT	GGGCACGCCG	GAGTGCCCCA
		TCGAG				
150am13_00		TCGAAAGGCAT	CCCGAACAAG	GTCGCGGTGC	ACCGCTGA	aagct
150AM7_001		TCGAGGGCAT	TCCGAACAAG	GCCACCACGC	ACCGCTGA	aagct
431am7_002		TGGACGGCAT	CCCCAACGAG	GACGCCAAGC	ACCGCTAG	aagct
						HindIII

FIG. 7D



HindIII

FIG. 8

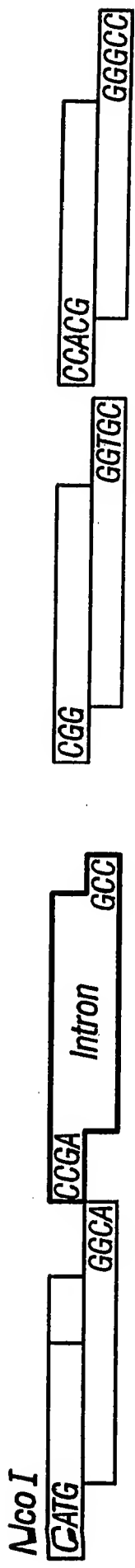


FIG. 9

Gap Ligation

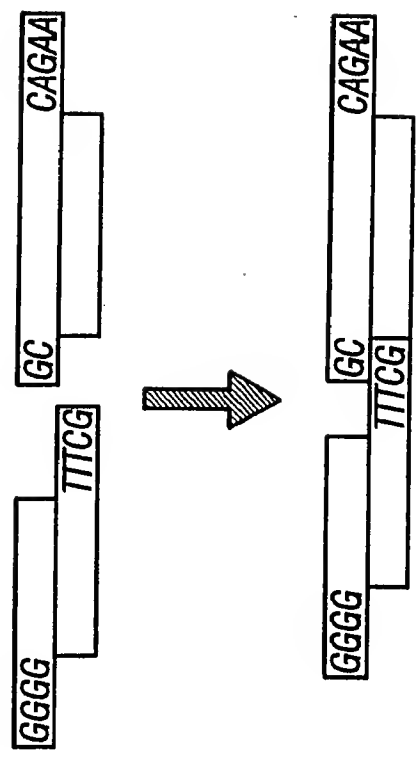


FIG. 10

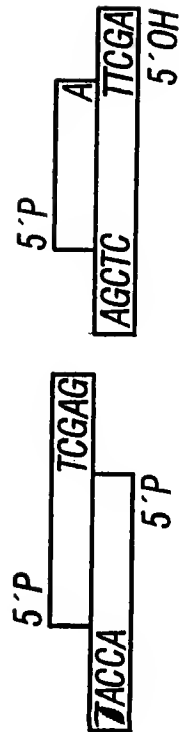
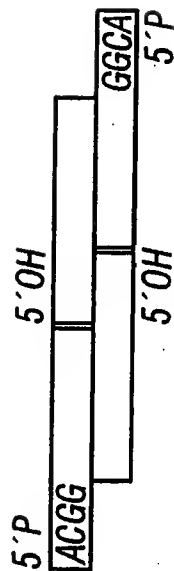
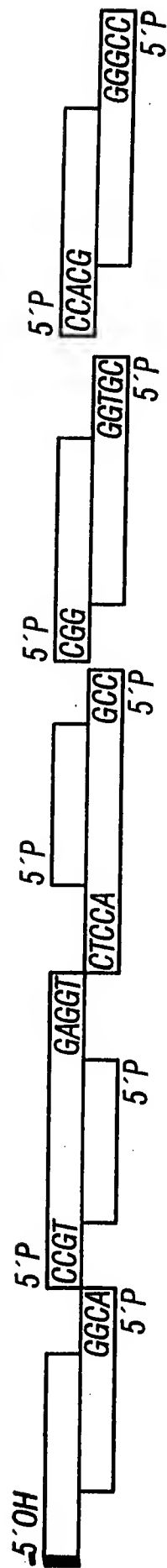


FIG. 11

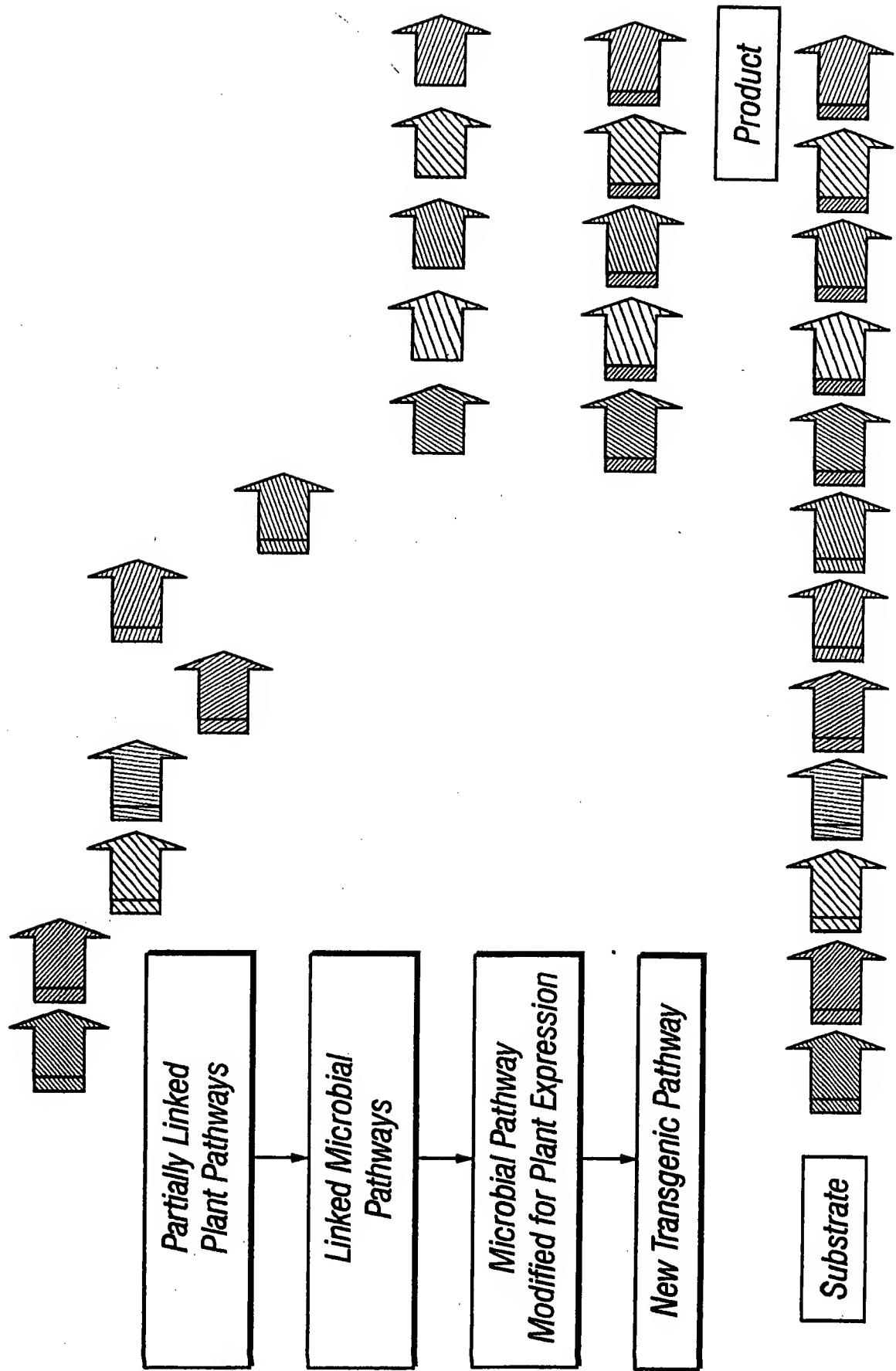


FIG. 12

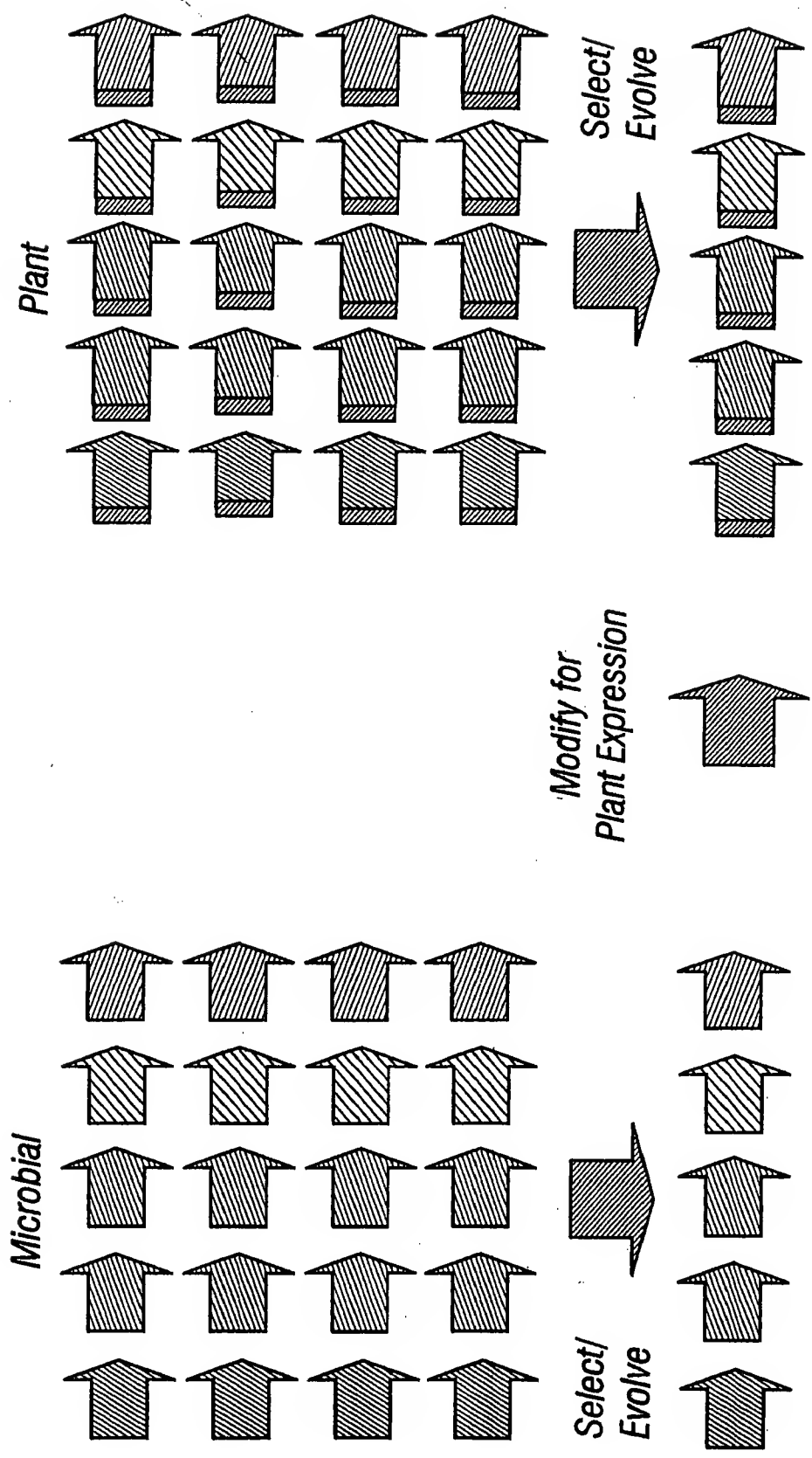


FIG. 13

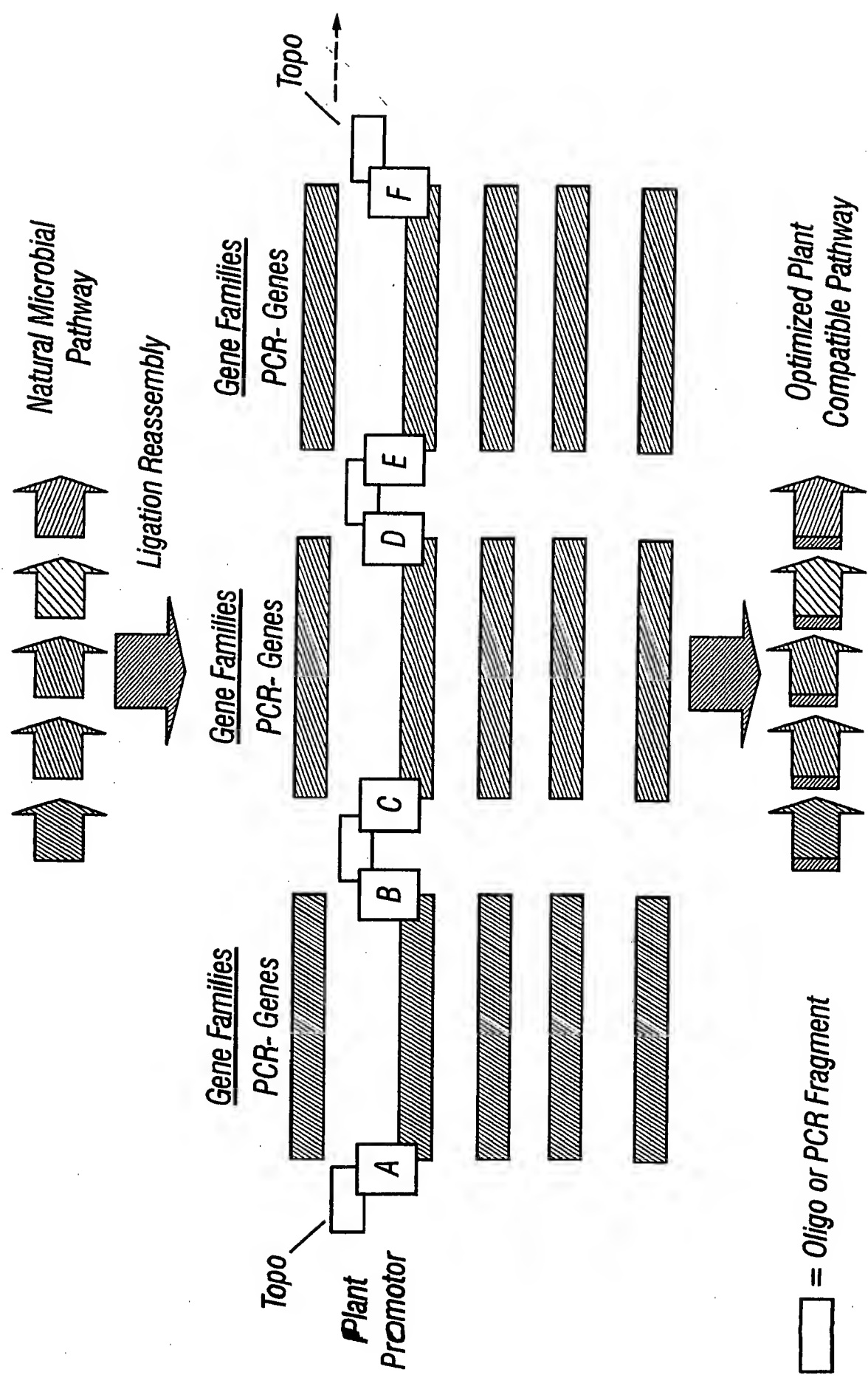


FIG. 14

Figure 15

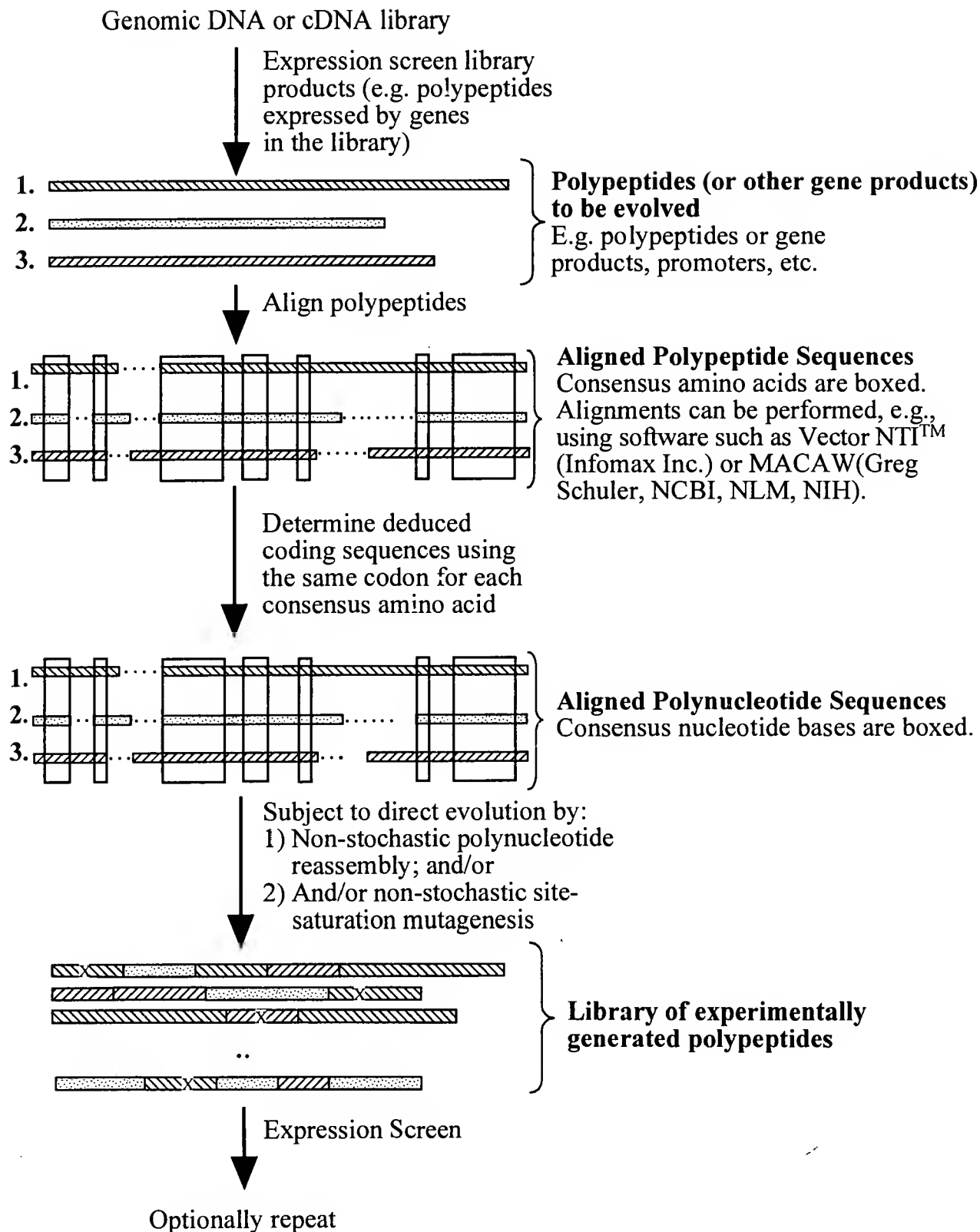


Figure 16

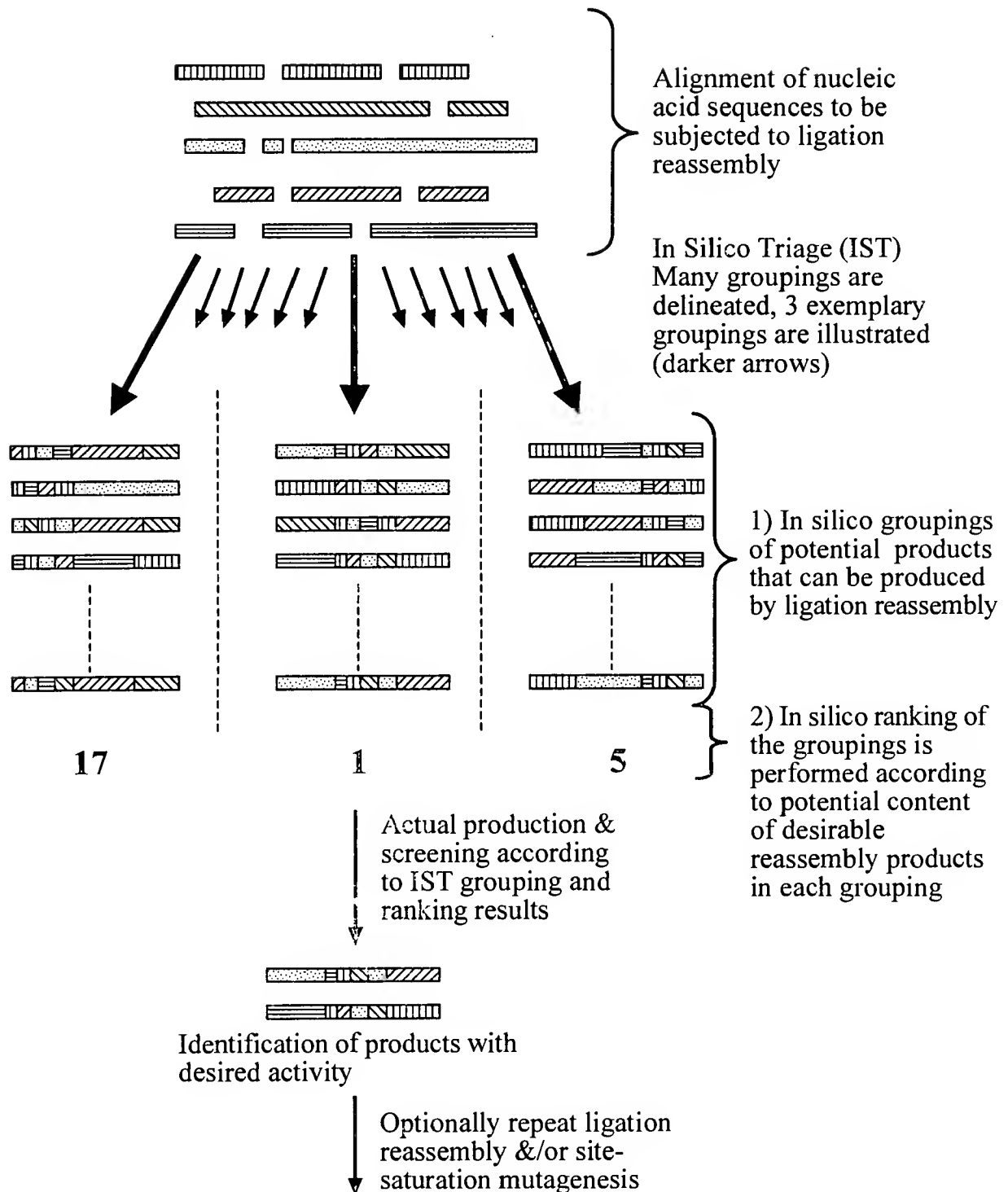
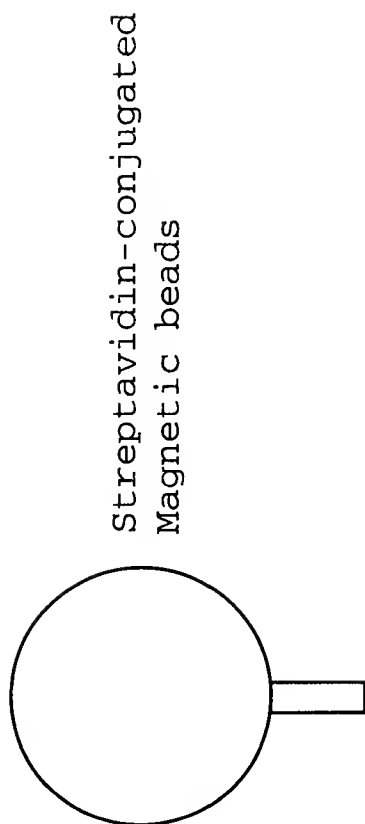


Figure 17



5' Biotinyl-spacer-TOPO sequence-AAGGTATTG-----GGCCTTC CGGACCGC-----
 F1 85-bp F2 49-bp
 ATAAC-----CCGGAAGGCC TGGCG-----
 GGACAACT

F3 36-bp F4 48-bp
 --TTCATCGAG CAGGTGCT-----CCGCTTACG GAGGTCGAG-----
 --AAGTAGC TCGTCCACGA-----GGCGAATG CCTCCAGATC-----

F5 45-bp
 ---CCTGTTGACCGA GAGCCACTG-----GCCGGTGAG
GGCTCTCGGTGAC-----CGGCCACTCGGGC

Figure 18

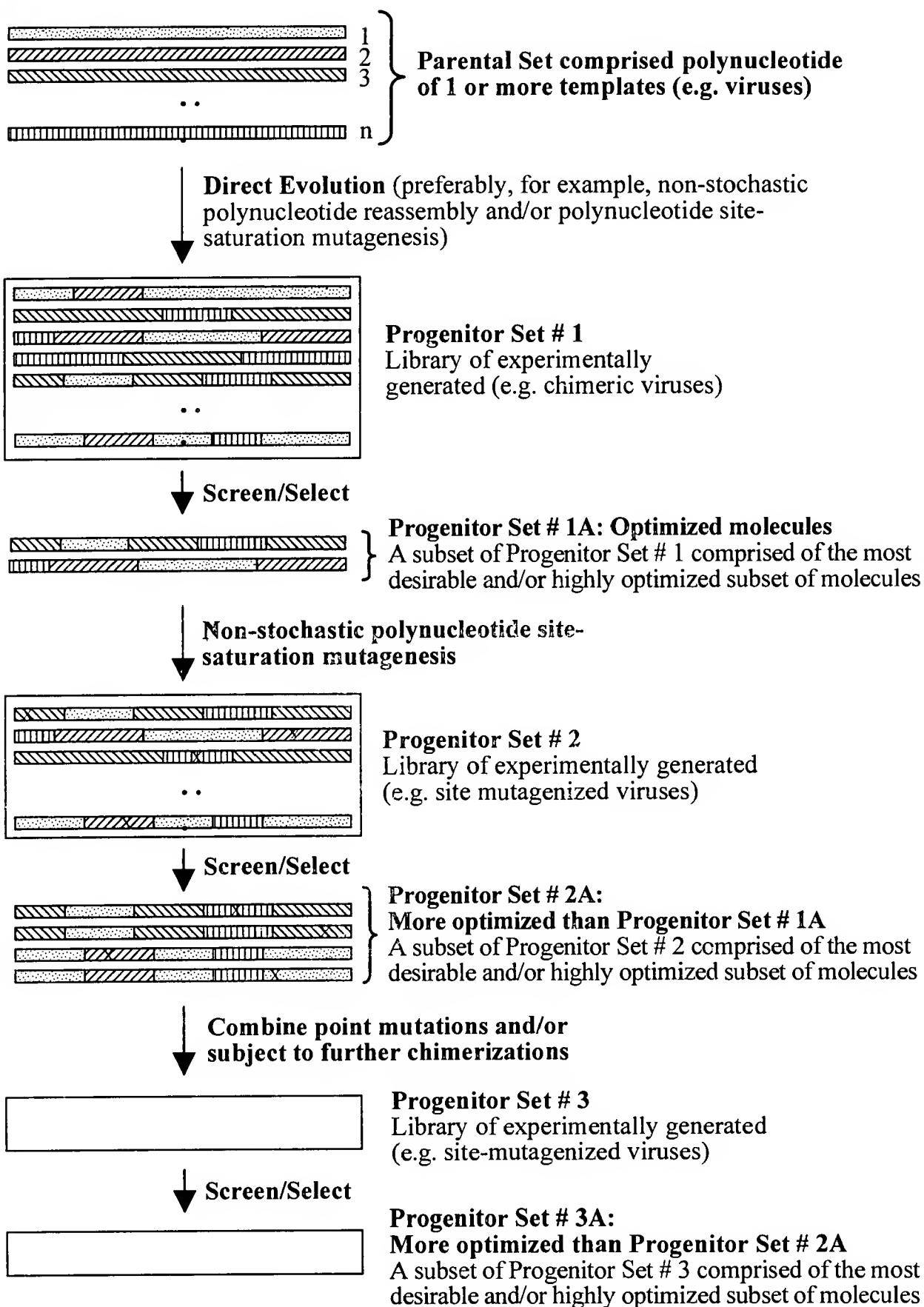


FIG. 19A

AF078102 Rhesus M67443 Towne	1	ATCGATTTAAACTGCCCGATTGAGGTTGTCGCTGAACACATTGTGAGTC-	50
	(1)	-----GCCATGCCATCCGTTACTGGTCC	
AF078102 Rhesus M67443 Towne	51	-TTTTCGAAAGGTAGATATGACACTGCTTTCCAGAAAGTCCCGCTGAAGCCCT	100
	(24)	CATTTCGGGGCACCGTGCCTGAAGAGCCGTTGTTTAGTCCGGCCGAC-ACGCCCG	
AF078102 Rhesus M67443 Towne	101	GGGTACATATCTGAAGCAGCGAGATGAGCGTCCCGAGGACGTTG-ATACG	150
	(99)	GTG-----CTGCCGCA-CGAGACGGGACTCCCTGCAGACGGGTATCCA	
AF078102 Rhesus M67443 Towne	151	C-TGCGACTACGGC-GTCTTCAGTTTGCCTAAATCTCGTGTTCCAACGTTG	200
	(114)	CGTGCGCGTGAAGCCAGCCCTCGCTGATCCTGGTGTCTGCAGTACACGCCCG	
AF078102 Rhesus M67443 Towne	201	TCT-GAC--TATGTTACAG-GGTGTTTATCTTCCGACATACGATCAACCG	250
	(164)	ACTCGACGCCATGCCACCGCGGCGACAATCAGCTGCAGGTGCAGCACACG	
AF078102 Rhesus M67443 Towne	251	TG-TTTACGACAAATATATTAAAGAAATTCCTGGTACTATCATTCCTGCTGC	300
	(214)	TACTTTACGGGACCGAGGTGGAGAACCGTGTCTCGTCAA-----CGT-GC	
AF078102 Rhesus M67443 Towne	301	GCAACCCCTGTAGCTGGTTTCTCGTCCCTCGCTCTGGTATAGATATTCCTCC	350
	(257)	ACAACCCCAACGGCCGGA-----GC-----ATCTGCCC	

FIG. 19B

AF078102 Rhesus M67443 Towne	(341) (285)	351 CAGGTAGAAACCCGTTTCGTTCCGACGAGTATCTTTGCTGCAGAAAGAGAA CAGCCAAAGAGCCCATGTTCGATCTATGTGTACCGCGTGCCTCAAGATG	400
AF078102 Rhesus M67443 Towne	(389) (334)	401 TTGGAAGCACTGGGAATATTTGGGGTGCAGTTGCCGTGATGGCAGT-GATC CTGAACATCCCCAGCATCAACGTGCACTACCTACCC-GTGGCGGCCGAGC	450
AF078102 Rhesus M67443 Towne	(438) (383)	451 CCAAATAAATCTAGGAGACTACGTGTGTGTTCTGCTGGGAAGCTATGGA GCAAAACACCGAATACCTGCTCCGTAGCTGACCTGTGTATTC-ACCGTCCGG	500
AF078102 Rhesus M67443 Towne	(488) (432)	501 TTTGTGTACGTGTATGACTGG---GACAGTGACCG-ACTCTTTCAGATAG CAAGCAGTCTGGCAGGCGGTCTCAAGGTCTCGGACTGGCCTGGACCG	550
AF078102 Rhesus M67443 Towne	(534) (482)	551 GT-ACTCACTCAAAAGAACTCGCGCAACACCGTTTACTG-ACATGTGAAT GTACGACAGAACCACTGGAAAGAGCCCGACG-TCTACTACACGTCAACGT	600
AF078102 Rhesus M67443 Towne	(582) (530)	601 CGGTATATCGCCATCCGCAAAACGCTTCTCCACCAACGAGCCTCGTTT TCGTGTTC-----CCACCAAGGACGTGG--CACTGCGGCACTGGTGTG	650
AF078102 Rhesus M67443 Towne	(632) (573)	651 CAAGTCGAGAAATTGTTGTGTTCTCGATCCGACAGACGCACTGCTCTAGC CGCG-CACGAGCTGTT-TG-CTCCATGGAGAACACGCGCGCAACCAAGA	700

FIG. 19C

AF078102 Rhesus M67443 Towne	(682) (620)	701	TAA GAC CGC AGA AGA GTT TCA TGG CGT TAA CCG TAG TAG TGA AAA CCC - CT T - GCAG T GAT AGT GAC CAG TAC GTT CAA GGT GTAC CTT GGA GT CCT TCT	750
AF078102 Rhesus M67443 Towne	(731) (668)	751	GGG CGAT CGG AGG CGG GAT CCG CTT GCT CTT CTGG - GTACT GTGG AGA AG GGC AGG ACG T - GCG CTT CCG GCA AGCT CTT TAT GCAC GTCA CGCT GGG CTC	800
AF078102 Rhesus M67443 Towne	(779) (777)	801	TAC GTCA AAT GTAT CCG CTT TGC TAA AAT GAG AGC TGA TAA CTT TAG TAA ACG TGG AAG AGG ACC TGA CCG ATG ACC CCG CAA CCG CAA CCG CTT CAT GC	850
AF078102 Rhesus M67443 Towne	(829) (767)	851	TCTC - AATAA AGTAT ATTAAT CAACG CATGTGT TCCGA - - - - - TG GTA CCG CCA CGA GCG CAA CCG CTT TAC GGT TGTGT CCA AAA ATA TGA TA	900
AF078102 Rhesus M67443 Towne	(871) (817)	901	CGTACT TGG TGT T - CTGGC - CGT TAC GCT AAT TTT TGG AAT TTT TGCTC ATCAA ACCGG CCAAG ATCTCGC ACATCA TECTGGATGTGGCTTTTACCTC	950
AF078102 Rhesus M67443 Towne	(917) (867)	951	ACCTGTGGAATTAATTCTGTGGACGAGTCCGGCGTGTGT TATGTGC - TGA ACAQGAGCAT - - - TTGGCGTGTCT - GTGTCCCAAGAGCATCCCGGGCGTGA	1000
AF078102 Rhesus M67443 Towne	(966) (914)	1001	GATCGACGAAAGCGACGTGTTT - - CGTCTAGCCGATAA CATTCAAATGT GCATCTCAGGTAACTATATGATGAA CGGCGAGCAGAT - - - CTTC TGGAGG	1050

FIG. 19D

[illegible]

FIG. 19E

AF078102 Rhesus M67443 Towne	(1355) (1286)	1401 AATGATGAGTTTAAACCGAGAAACCGTCTGATGGTACTGTGATGTTTTCGTGT AATCAGCA-TCCCTCGCCGACCGCGTGCACGCCGGGCGTTATGACACCGCG	1450
AF078102 Rhesus M67443 Towne	(1405) (1335)	1451 A-GACAGAGGTTTTCCTCC CAGAACCGTAAAGTTCCGAGGGTGAAGAAGCGAT CCGCCCTTAAGCCGAGTCC----ACCGTCCGCCCGAAGAGGACAACCGAC	1500
AF078102 Rhesus M67443 Towne	(1454) (1381)	1501 GACTACACAGACAGAGGAGAGATGATGATTAACCCAGTCAGAAAGAAACCCC AAGGATTCAGCAACCA--AATCC----ACAAATCCGCCCGTGTTCACCTG	1550
AF078102 Rhesus M67443 Towne	(1504) (1425)	1551 TCAGCATCAGCCCTGTGTGTGTCATGTTTCAACATGAACAAACGGCACTGTTG GCGGCCCTGCCAGGCCCGCATCTTGGCCCGCAACCTGGTGCCCATGTTG	1600
AF078102 Rhesus M67443 Towne	(1554) (1475)	1601 ATTCTTATGATGATGAGAGTGAGTCAAT-CTCTG--TCCCT-CAGATACCCCA CTACGGTTTCAGCGTACAGAACTCTGAAGTACACAGGAGTTCTTCTGCGACGCC	1650
AF078102 Rhesus M67443 Towne	(1600) (1525)	1651 TGATTCACCAACCCACAGACATTAATGGCCATAATCCAAAGGATATGGCA-- --AACGACATCTACCG--CATCTTCGCCGAATTGGAAGGCGTATGGCAGC	1700
AF078102 Rhesus M67443 Towne	(1648) (1571)	1701 -----AAACGAAAGACCCCGGTTACCAATGAAGAGAAATGTTACTTC CCGCTGCCCAACCCAAACGTCCGCCCGACCGGCAAGACGCCCT-TGGCCCG	1750

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FIG. 20A

AF081502 Marmota monax IFN-gamma	(1)	1	50
D30619 Felis catus IFN-gamma	(1)	CTACTGATTTCAACTTCTTTGGCCTAACTCTC	GGCCTAACTCTCTCTCTGAAACGATGAAATAC
X87308 Homo sapien IFN-gamma	(1)		
AF081502 Marmota monax IFN-gamma	(31)	51	100
D30619 Felis catus IFN-gamma	(49)	ACAAAGTTTATTTCTTTGGCTTTTTCAGCTCTGCATCATTTTGGGTTCTCTCTAG	
X87308 Homo sapien IFN-gamma	(1)	ACAAAGTTTATTTCTTTGGCTTTTTCAGCTTTGCATTAATTTGTGTCTCTCTGS	
AF081502 Marmota monax IFN-gamma	(81)	101	150
D30619 Felis catus IFN-gamma	(99)	CTGTACTTCCAGGACACAGTTAAATAAGAAATAGAAAGATTFAAAAGGAT	
X87308 Homo sapien IFN-gamma	(1)	TTAATACTGTTCAGGCTCATGTTTTAAAGAAATAGAAAGCTTAAAGGGAT	
		-IGTTACTGCCAGGACCCATAATGTATAAGAAAGCAGAAACCTTAAGAAAT	
AF081502 Marmota monax IFN-gamma	(121)	151	200
D30619 Felis catus IFN-gamma	(149)	ATTTTAATGCAAGTAATTCAAATGTAATCAGATGGCGGGTCTCTCTTCTTG	
X87308 Homo sapien IFN-gamma	(50)	ATTTTAAATGCAAGTCAATTCAGATGTAGCGGATAAATGGAACCTCTTTCTTA	
AF081502 Marmota monax IFN-gamma	(181)	201	250
D30619 Felis catus IFN-gamma	(199)	GATTAATTTTGGATTAATGGAAGAGGAGAGTGACAAAAAATAATCAGAG	
X87308 Homo sapien IFN-gamma	(100)	GACATTTTGAAGAACTGGAAGAGAGGAGAGTGATTAATAATTCAGAG	
		GGCATTTTGAAGAAATGGAAGAGGAGAGTGACAGAAAAATAATCAGAG	
AF081502 Marmota monax IFN-gamma	(231)	251	300
D30619 Felis catus IFN-gamma	(249)	CCAAATGTCTCTCTTTCTACTTCAAACTCTTTTGAACTCTTAAGACAA--	
X87308 Homo sapien IFN-gamma	(150)	CCAAATGTCTCTCTTTTACTTCAAACTTTTAAAGAACTTTAAAGATGA--	

FIG. 20B

AF081502 Marmota monax IFN-gamma	(279)	301	-CAAGATCATCCAAAGGAGCATGGACACCATCAAGGGGATCTTTTTCGT	350
D30619 Felis catus IFN-gamma	(299)		ACCAGCGCATTCAAAGGAGCATGGACACCATCAAGGAAGACATGCTTGAT	
X87308 Homo sapien IFN-gamma	(198)		-CCAGAGCATCCAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTC	
AF081502 Marmota monax IFN-gamma	(328)	351	AAGTTCTTCAAAGAGCAGTACCAATAAGGTGACGACCTTCCCTAAAGGTGTC	400
D30619 Felis catus IFN-gamma	(349)		AAGTTGTTAAATAACAGCTCCAGCTAAACGGGATGACTTCCTCAAGCTGAT	
X87308 Homo sapien IFN-gamma	(247)		AAGTTTTCATAATAGCAACAAGAAACGAGATGACTTCGAAAGCTGAC	
AF081502 Marmota monax IFN-gamma	(378)	401	TCAAGTTCAAGTAAATGACCTGAAGATCCAGCGTAAAGCAGTGAAGTGAAC	450
D30619 Felis catus IFN-gamma	(399)		TCAAAATCCCTGTGTAATGATCTGAGGTCCAGCGCAAGCAATAAATGAAC	
X87308 Homo sapien IFN-gamma	(297)		TAAATTATTCGGTAACTGACATTGAAATGTCCAAACGCAAGCAATAATGAAC	
AF081502 Marmota monax IFN-gamma	(420)	451	TCAAGAAAGTGATGAATGATCTGTACCAACATCTATCCCTAAGGAAGCGA	500
D30619 Felis catus IFN-gamma	(449)		TCTTCAAAAGTGATGAATGATCTCTCACCAAGATCTAACCTGAGGAAGCGC	
X87308 Homo sapien IFN-gamma	(347)		TCATCTCAAGTGATGGGTGAATCTGTCTCCAGGAGCTAAACAGGGAAGCGG	
AF081502 Marmota monax IFN-gamma	(478)	501	AAAAGGAGTCAGTCTTTCGATTTCGGGGTCCGAGAGCATCCAAATAACAGTC	550
D30619 Felis catus IFN-gamma	(499)		AAAAGGAGCCAGAACTCTGTTTCGAGGCGCTAGAGCATCGAAAATAATGGTT	
X87308 Homo sapien IFN-gamma	(397)		AAAAGGAGTCAGATGCTGTTTCGAGGTCCGAGAGCATCCGAG-----	
AF081502 Marmota monax IFN-gamma	(528)	551	CTCATGCGCTGCG-----	569
D30619 Felis catus IFN-gamma	(549)		GTCTGCGCTGCAATATTG-----	
X87308 Homo sapien IFN-gamma	(439)		-----	